

## EAST Search History

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	"10574378"	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/22 15:37
L2	49	(136/243-265.ccls.) and ((polyaniline or panis) with aluminum with conduct\$3)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/22 15:40
L3	23	(136/243-265.ccls.) and ((polyaniline or panis) with aluminum with copper)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/22 15:40
L4	247	(136/243-265.ccls.) and ((too or oxide) with aluminum with copper)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/22 15:45
L5	4	4 and 136/250.ccls.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/22 15:46
L6	49	4 and spher\$4	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/22 15:47
L8	10120	136/244-265.ccls.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/22 15:58
L9	59	8 and ((conductive adhesive or solder) with (contact or electrode) with series)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/22 15:59
S1	7	("3736476"   "3998659"   "4173494"   "4335266"   "4581108"   "5567469"   "5578503").PN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/15 19:35
S2	7	("3736476"   "3998659"   "4173494"   "4335266"   "4581108"   "5567469"   "5578503").PN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/15 19:36
S3	7	S1 or S2	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/15 19:36
S4	34	"4407320"	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/15 19:38
S5	41	S3 or S4	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/15 19:39
S6	5	S5 and (mo or molybdenum)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/15 19:39
S7	2	"10574633" or "10574378"	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/15 19:44

S8	10217	136/243-265.ccls.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/15 19:53
S9	3804	S8 and (spherical or grain or particulate or particles)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/15 19:53
S10	2220	S8 and (spherical or grain or particulate or particles) and (cig or indium or gallium)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/15 19:54
S11	762	S8 and (spherical or grain or particulate or particles) and (cig or ((selenium or sulfur) and (indium or gallium)))	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/15 19:54
S12	386	S8 and (spherical or grain or particulate or particles) and (cig or ((selenium or sulfur) and (indium or gallium))) and (mo or molybdenum)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/15 19:55
S13	10	(scheuten near1 jaques or volker near1 geyer or patrick near1 kaas).in.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/15 19:56
S14	12	scheuten.as.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/15 19:57
S15	23	scheuten.as.	EPO; JPO	ADJ	ON	2010/07/15 19:57
S16	19	(scheuten near1 jaques or volker near1 geyer or patrick near1 kaas).in.	EPO; JPO	ADJ	ON	2010/07/15 19:57
S17	6	(S13 or S14 or S15 or S16) and (spherical or grain or particle or particulate)	EPO; JPO	ADJ	ON	2010/07/15 19:58
S18	18	(S13 or S14 or S15 or S16) and (spherical or grain or particle or particulate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/15 19:58
S19	6	("6488770"   "6562363"   "7019208").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/15 20:01

S20	3	"20030102023"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/15 20:02
S21	1	cigs and 136/250.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/15 20:03
S22	307	S8 and (spherical or particulate or particles) and (cig or ((selenium or sulfur) and (indium or gallium))) and (mo or molybdenum)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/15 20:12
S23	96	S8 and (spherical ) and (cig or ((selenium or sulfur) and (indium or gallium))) and (mo or molybdenum)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/15 20:12
S24	96	S22 and core	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/15 20:13
S25	21	(spherical or particulate or particles) and (cig or ((selenium or sulfur) and (indium or gallium)))	EPO; JPO	ADJ	ON	2010/07/15 20:19
S26	3	(core) and (cig or ((selenium or sulfur) and (indium or gallium)))	EPO; JPO	ADJ	ON	2010/07/15 20:20
S27	6	136/250.ccls.	EPO; JPO	ADJ	ON	2010/07/15 20:23
S28	149	136/250.ccls.	US-PGPUB; USPAT	ADJ	ON	2010/07/15 20:23
S29	44	S28 and (cigs or gallium)	US-PGPUB; USPAT	ADJ	ON	2010/07/15 20:23
S30	55	S28 and (cigs or copper)	US-PGPUB; USPAT	ADJ	ON	2010/07/15 20:24
S31	0	S28 and chacogen\$5	US-PGPUB; USPAT	ADJ	ON	2010/07/15 20:26
S32	0	S28 and chacopyrite	US-PGPUB; USPAT	ADJ	ON	2010/07/15 20:27
S33	15	S28 and (group near1 III)	US-PGPUB; USPAT	ADJ	ON	2010/07/15 20:27
S34	1	S28 and chalcopyrite	US-PGPUB; USPAT	ADJ	ON	2010/07/15 20:28

S35	9	(spherical or particulate or particles) and chalcopyrite	EPO; JPO	ADJ	ON	2010/07/16 14:02
S36	1194	(spherical or particulate or particles) and chalcopyrite	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:02
S37	85	(spherical or particulate or particles) and chalcopyrite and core	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:03
S38	409	(spherical or particulate or particles) same chalcopyrite	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:08
S39	89	(spherical or particulate or particles) same chalcopyrite same (electrode or contact or mo or molybdenum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:08
S40	40972	(spherical or particulate or particles) same (copper or cu or group I?) same (electrode or contact or mo or molybdenum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:12
S41	16178	(spherical or particulate or particles) same (copper or cu or group I?) same (mo or molybdenum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:13
S42	562	S41 and (solar or photovoltaic)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:14
S43	1450	(spherical or particulate or particles) same (copper or cu or group I?) same (sulfur or selenium) same (mo or molybdenum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:14

S44	33	S43 and (solar or photovoltaic)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:15
S45	575	(grain) same (copper or cu or group I?) same (sulfur or selenium) same (mo or molybdenum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:19
S46	273	(core) same (copper or cu or group I?) same (sulfur or selenium) same (mo or molybdenum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:20
S47	29	S45 and (solar or photovoltaic)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:20
S48	7	S46 and (solar or photovoltaic)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:20
S49	14	S46 and (diode)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:20
S50	7	S45 and (diode)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:20
S51	48	S47 or S48 or S49 or S50	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:20

S52	7	(spherical or particulate or particles) same (copper or cu or group I?) (film or layer or precursor or preparatory) same (sulfur or selenium) same (mo or molybdenum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:30
S53	22	(spherical or particulate or particles) same (copper or cu or group I?) (film or layer or precursor or preparatory) same (sulfur or selenium) same (electrode or contact or mo or molybdenum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:31
S54	3481	(spherical or particulate or particles) same (film or layer or precursor or preparatory) same (sulfur or selenium) same (electrode or contact or mo or molybdenum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:44
S55	288	(spherical or particulate or particles) same core same (precursor or preparatory) same (electrode or contact or mo or molybdenum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:45
S56	25	S55 and (solar or photovoltaic)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:51
S57	7548	(spherical or particulate or particles) same core same (film or layer) same (electrode or contact or mo or molybdenum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:52
S58	237	S57 and (solar or photovoltaic)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 14:53

S59	49	CHITTIBABu.in. and (solar or photovoltaic)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 15:15
S60	11	S59 and core	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 15:16
S61	86636	(spherical or particulate or particles) same (coating or coated or coat) same (electrode or contact or mo or molybdenum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 15:23
S62	51120	((spherical or particulate or particles) with (coating or coated or coat)) same (electrode or contact or mo or molybdenum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 15:23
S63	793	((spherical or particulate or particles) with (coating or coated or coat) with semiconductor) same (electrode or contact or mo or molybdenum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 15:24
S64	251	S63 and (solar or photovoltaic)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2010/07/16 15:27
S65	149	136/250.ccls.	US-PGPUB; USPAT	ADJ	ON	2010/07/16 15:36
S66	4	("3683307").URPN.	USPAT	ADJ	ON	2010/07/16 15:42
S67	6	("4407320"   "5081069"   "5785768"   "6156968"   "6180870"   "6281427").PN. OR ("6420644").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 15:55
S68	6633	cigs	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 16:09
S69	511	S68 and (precursor or preparatory) and (mo or molybdenum)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 16:10

S70	122	S68 and (precursor or preparatory) and (mo or molybdenum) and ((sulfur or selenium) with atmospher\$2)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 16:10
S71	122	S68 and (precursor or preparatory) and (mo or molybdenum) and ((sulfur or selenium) with atmospher\$2) and glass	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 16:11
S72	56	S68 and (precursor or preparatory) and (mo or molybdenum) and ((sulfur or selenium) with atmospher\$2) and glass and (pvd or cvd)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 16:17
S73	101	S68 and (first with (group I? or cu or copper)) and (mo or molybdenum) and ((sulfur or selenium) with atmospher\$2) and glass	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 16:41
S74	28	("4128733"   "4465575"   "4571447"   "4581108"   "4638111"   "4680422"   "4684761"   "4703131"   "4915745"   "4940604"   "5045409"   "5151385"   "5356839"   "5436204"   "5523022"   "5728231"   "5730852"   "5769964").PN. OR ("6323417").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 16:54
S75	16	S74 and seleni?ation	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 16:55
S76	9	S74 and seleni?ation and (cvd or pvd)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 17:00
S77	2	S74 and (seleni?ation with pressure)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 18:10
S78	1	cis with soda lime glass with zno	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 18:58
S79	115	cis and molybdenum and soda lime glass and zno	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 18:58
S80	7	cis and (molybdenum with thickness) and soda lime glass and (zno with thickness)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 18:59



S81	2	cis and (molybdenum with thickness) and float glass and (zno with thickness)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 19:15
S82	3	cis and (molybdenum with thickness) and (float near1 glass) and (zno with thickness)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 19:15
S83	130	cis and ((cis or absorber or semiconductor) with (thickness or nm)) and (float near1 glass or soda near1 glass)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 19:18
S84	1800	cis and kcn	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 20:01
S85	255	cis and kcn and glass and mo	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 20:02
S86	8	S85 and (solar or photovoltaic)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 20:02
S87	8	"6,429,369"	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 20:04
S88	385	cis and potassium cyanide and glass and mo	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 20:07
S89	4	S88 and (solar or photovoltaic)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/16 20:07
S90	0	"2004024839"	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/19 12:29
S91	2	"20040248394"	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/19 12:29
S92	3368	ball bump	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/19 13:40
S93	73	S92 and (solar or photovoltaic)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/19 13:40
S94	2866	S92 and (semiconductor)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/19 13:42
S95	1639	S92 and ((semiconductor) with (ball or spherical))	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/19 13:43
S96	100	S92 and ((semiconductor) near1 (ball or spherical))	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/19 13:43
S97	4	("3683307").URPN.	USPAT	ADJ	ON	2010/07/19 14:00
S98	4	("3683307").URPN.	USPAT	ADJ	ON	2010/07/19 14:00

S99	9	("3683307"   "3913079"   "3930244"   "3944842").PN. OR ("4052711").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/19 14:01
S100	55	("2904613"   "3038952"   "3247477"   "3351516"   "3522339"   "3586541"   "4173494"   "4219926"   "4407320"   "4410558"   "4521640"   "4581103"   "4582588"   "4614835"   "4625071"   "4663828"   "4691076"   "4806495"   "4872607"   "4888061"   "4917752"   "4957601"   "4968372"   "4992138"   "4994878"   "5028546"   "5091319"   "5092939"   "5192400"   "5232860"   "5278097").PN. OR ("5674325").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/19 15:49
S101	171	(solar or photovoltaic) and (interconnect with (width))	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/20 12:35
S102	22	(solar or photovoltaic) and (interconnect with (width)) and CIGS	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/20 12:35
S103	21	(solar or photovoltaic) and (interconnect with (width)) and CIS	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/20 12:35
S104	5	(solar or photovoltaic) and (interconnect with (spacing)) and CIS	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/20 12:35
S105	740	(solar or photovoltaic) and (interconnect with (width or spacing or spaced or length))	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/20 12:36
S106	40	(solar or photovoltaic) and (interconnect with (width or spacing or spaced or length)) and (CIGS)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/20 12:36
S107	25	(solar or photovoltaic) and (interconnect with (width or spacing or spaced or length) with resistance)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/20 12:56
S108	180	(solar or photovoltaic) and (series with (width or spacing or spaced or length) with resistance)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/20 13:27

S109	156	(solar or photovoltaic) and (copper with conductive near1 polymer with aluminum)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/20 16:27
S110	23	(136/243-265.ccls.) and (copper with conductive near1 polymer with aluminum)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/20 16:28
S111	117	(solar or photovoltaic) cell and (copper with conductive near1 polymer with aluminum)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/20 16:28
S112	435	(solar or photovoltaic) cell and (copper with polymer with aluminum)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/20 16:30
S113	68	(136/243-265.ccls.) and (copper with polymer with aluminum)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/20 16:30
S114	40	(136/243-265.ccls.) and (copper with polymer with aluminum with conductive)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/20 16:32
S115	50	(136/243-265.ccls.) and (copper with polymer with aluminum with conduct\$3)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/20 16:33
S116	10	S115 not S114	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/20 16:33
S117	359	(136/243-265.ccls.) and (polymer with aluminum)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/20 16:39
S118	110	(136/243-265.ccls.) and (polymer with aluminum with conduct\$3)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/07/20 16:39

7/ 22/ 2010 4:37:09 PM

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